
The Influence of Supply Chain Integration on Export Performance in Tanzania, the case of selected agricultural produce exporting companies in Dar es Salaam

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Abstract— The paper focuses on the influence of supply chain integration on export performance. The study was guided by the following objectives; to determine the influence of internal integration on export performance; to determine the effect of supplier integration on export performance and to determine the contribution of supply chain performance on export performance. The study was guided by three theories namely; resource based view, dynamic capability and relational exchange theory. The methodology adopted was quantitative empirical study and data were collected from the supplies managers, marketing managers and chief executive officers. The sample of 186 was obtained using the purposive sampling technique. Data were analysed using descriptive and inferential statistics and results indicate that both internal and supplier integration have positive and significant influence on export performance. Furthermore, findings indicate that supply chain integration has a positive and significant effect on export performance. The conclusion implied that integration create vital resources and capability necessary for export performance. Integration allows for sharing and creating resources which are difficult for companies acting individually to attain and it emphasizes the aspect of collaboration between functional units as among the prerequisites to perform in the international stage.

Keywords— Internal Integration, Supplier Integration, Supply Chain Performance and Export Performance.

I. INTRODUCTION

Supply chain integration (SCI) has become increasingly critical for organizational success in the long run (Huo et al., 2014). In order to survive in the dynamic business environment, firms need to collaborate with their suppliers and customers. Supply chain integration refers to the strategic collaboration between manufacturers and their supply chain partners in order to leverage internal and external resources and capabilities across the whole supply chain (Flynn et al., 2010). Members of the supply chain work together and collaborate to improve performance, resulting in more profitability while meeting customer demand (Kumar, 2017).

Today, many activities such as the procurement of raw materials, inventory control and goods distribution are no longer performed within the boundaries of the organizations and have moved to the supply chain level. Firms have accepted that they cannot operate on their own and require the participation and collaboration of other members of their supply chain, including their suppliers and customers. Experts have recognized the advantages of SCI and coordination among supply chain members (Flynn et al., 2010).

SCI affects firm performance in both direct and indirect ways. Directly, the close collaboration between the companies within the supply chain results in improved performance (Flynn et al., 2010; Huo et al., 2014; Kumar et al., 2017). Indirectly, SCI can help firms identify and

eliminate the activities that do not add value to the whole supply chain. This can enhance product quality and decrease cost of production, resulting in better value creation and higher customer satisfaction.

Similarly, firms and organization in the third world countries suffer from scarcity of resources required to make them compete in the international markets. The current level of export in the developing countries requires strategies and commitment of all stakeholders involved in the supply chain. Organizations seek to create competitive advantage in order to succeed in international markets. However, it is difficult for small firms from the developing countries to have sufficient resources for enhancing competitive and sustainable performance. Literature suggests that; resources that create competitive advantage should be unique, difficult to imitate and valuable (Peng & York, 2001).

Above all, there is close association between supplier integration and export performance and the association between internal integration and export performance. Internal integration is based on internal arrangement within an organization such that functional units collaborate in achieving smooth flows; shared knowledge and relationship (Turkulainen et al., 2017). Internal integration forms basis for supplier and customer integration. Proper internal integration has direct influence on cost minimization through reduction of redundant work and collaboration in design. The focuses on influence of supply chain integration in enabling firms in developing countries specifically in Tanzania to achieve greater levels of export performance. Supply chain integration improves export performance for agricultural products through creation of unique resources and capabilities

In Tanzania agriculture is third in terms of GDP contribution and the first in terms of employment creation as it employs 65 percent of the population. Agriculture accounted for 25.88 percent in GDP in which crops was leading, followed by livestock and the subsector fisheries was the least (Chongela, 2015). Agriculture accounts for 30 percent of export earnings in Tanzania (ibid) and it accounts for 85 percent of all exports (Suleiman and Kurt, 2015). Moreover, Tanzania which has 44 million hectares of arable land and the land in use for agriculture is about 23 percent (Walter, 2008) there is huge opportunity of making Tanzania main exporter of agricultural products through commercialization of agriculture and processing the products rather than selling them as raw products.

There are several efforts made by the government of Tanzania to support export performance for agricultural products including promoting growth in agriculture (Myovella et al., 2015) and the formulation of the National

Export Strategy (2010-2014) in 2009. One of the strategies sought was to integrate the public and private sectors in order to accelerate the export performance. Export promotion is so important in economic development such that export expansion causes economic development and such relationship is considered unidirectional (Mah, 2014). Government and other stakeholders understand the importance of export promotion on economic development and it works in improving the performance of firms in international markets. Despite the efforts made by firms undertaking export business in Tanzania they face challenges in international markets and such challenges are grouped into three categories as follows; limited capital, competence based challenges and policy related challenges. Competencies based challenges include production technology, information and communication technology (ICT) and ability to search for information related to export markets (Mpunga, 2016).

Small and medium firms in the developing countries suffer from limited access of finance, unawareness of guiding regulations and standards governing the international business, inadequate business skills and partial understanding of consumer needs (Kazimoto, 2014; Anderson, 2011). Export performance in developing countries including Tanzania is extremely low and it requires promotion of networks and partnerships (Rutashobya & Jaensson, 2004). This article view integration as means of improving export performance through the integration of supply chain actors within an organization and between the external supply chain members, and the influence of supply chain performance in enhancing export performance.

II. THEORETICAL AND EMPIRICAL LITERATURE

2.1 Theoretical Literature

In order to address the complexity of integration and export performance researcher combined the following theories; Resource based view, Dynamic capability theory and Relational exchange theory as research basis for the study. The purpose of combining the three theories was to provide a comprehensive view of relationship between the variables of study. The study examines influence of supply chain integration elements of internal and supplier integration in improving export performance through the creation of strategic resources and capabilities of exporting firms from the developing countries, further ventured to establish the relationship between the supply chain performance and export performance.

2.1.1 Resource based view

Resource based theory is the most used theory in export performance studies (Wynarczyk, 2013) as it emphasizes the concept of integration and elaborates the dynamic process of firms deploying resources to create unique capabilities. Resource based view theory was built on the assumption that the basis of competitive benefit was organizational ownership of strategic resources which are unevenly distributed across firms. The difference in the ownership of resources was considered stable overtime (Rua et al., 2018). Resources owned by organization can either be tangible or intangible, literature proposes that intangible assets are the source of competitive advantage because they are rare and socially complex and that makes them difficult to imitate (ibid).

Literatures on Resource based theory exclusively focused on firm's internal resources. However, recently other scholars have found that resources owned by partner can also form a source of competitive advantage (Boehe, 2013). It is through the collaboration relationships firms gain access to resources which are difficult to imitate and not available within own firms. Therefore firms that lack internal resources and capabilities which create competitive advantage can still depend on organizational linkages to overcome such deficiency (Zacharia et al., 2009).

Therefore, Resource based view theory provides support for collaboration between firms created in order to access resources and capabilities which firms do not internally possess. Some of the resources that create competitive advantage include; reputation, finances, staff, culture, relationship and informational exchange (Rua et al., 2018).

However, Resource based view theory could not account for failure of some firms to perform regardless of having sufficient resources. Resource based theory falls short of explanation for internationalization process of small firms in emerging economies as they are likely to have inadequate resources (Chen et al., 2016). The resource shortage does not concern only small firms in emerging economies but very few firms possess resources and capabilities which give them competitive advantage on a global scale. The level of competitiveness of supply chain depends on access to those capabilities through collaboration (Salam, 2017).

It is evident from Resource based view that having unique resources is not sufficient condition for creating competitive advantage in markets in which a firm operate (Rua et al., 2018: Piening & Salge, 2015). This study therefore investigated the aspects of efficient use of resources to improve firm's efficiency and create competitive edge and that call for dynamic capability

theory. Due to its ability to adapt the changes in the environment dynamic capability theory may offer insightful view on export success in unpredictable environment (Chen et al., 2016). In sub section 2.1.2, researcher discusses the influence of Dynamic capability theory in enhancing competitive advantage of the organization.

2.1.2 Dynamic capability theory

Dynamic capability theory was developed to address the shortcomings of Resource based view which is static by nature (Chen et al., 2016). Dynamic capability theory emphasizes on continuous development of knowledge which creates unique capabilities that allows for the development of superior value (Revilla & Knoppen, 2015). The following are some definitions of dynamic capability.

Dynamic capability is the ability of firm to combine, develop and reconfigure resources and capabilities to address the rapid changes in business environment. Rapid resource configuration is important in creating dynamic capability (Fawcett et al., 2017: Piening & Salge, 2015). Dynamic capability reflects the firms' capacity to create new and inventive forms of competitive benefits (Rua et al., 2018: Abrahamsson et al., 2015).

The distinction between resources and capability lies in the fact that resources are production inputs that owns controls or have access to and capabilities refers to ability of organization to use resources to accomplish her objectives (Piening & Salge, 2015). Since the dynamic capability theory was developed from the exchange and relationship among supply chain members (Handfield et al., 2015); there is a need to include relational exchange theory and get understanding of benefits of creating relationship in the supply chain and the practical aspects of such relationships.

2.1.3 Relational exchange theory

Supply chain integration comes in operation when there is relationship between the supply chains members, studies indicate that integration is among the critical factors in determining food safety (Duong et al., 2024). Relationship comes as the second most important factors in food supply chain after quality and cost (Karipidis, chrysochou & Karypidou, 2020). Integration between the supply chain members is important because consumers are concerned with food quality and safety as a result they need visibility and traceability of goods from place of production till reaching the market. Traceability is made possible when there is relationship among the supply chain members and when members are connected to allow flow of information.

Relational exchange theory entails the increased social interaction with partners because developing relationship involves committing resources and it is not economical to apply it with every partner as it is the case for transactional exchange which is nonspecific. Participants in relational exchange are henceforth expected to develop complex, personal and non-economic relationship in terms of customer satisfaction and take part in social exchange (Glavee-Geo & Engelseth, 2018).

2.2 Empirical Literature

2.2.2 Supplier Integration (SI)

Supplier integration is the existence of cooperation or partnership between companies and their suppliers. In this case, the activity is to make plans, develop inter-organizational strategies, develop an integrated process for sharing information and experiences in running the organization (Flynn et al., 2010).

According to Sundram, Chhetri & Bahrin (2020) SI is a continuous collaboration between companies with outside parties to provide services and supply goods so that the relationship that occurs is a form of providing a good customer experience for external parties. According to Zhao et al., (2013) supplier Integration prioritizes service to customers according to agreed terms and product specifications and responds to market changes. Internal partners and external partners combine strategies, practices, and processes between organizations to collaborative processes. Also, it is synchronized, which involves the need for interrelated core competencies, especially with critical suppliers.

This article uses indicators maintaining cooperative relationships with suppliers, creating long-term relationships with suppliers, and involving suppliers to improve the quality of company services. Several studies have shown a higher level of supplier integration potential to more significant benefits (Huo, 2012; Moyano et al., 2016).

Zhang & Gunasekaran, (2015) sought to develop a conceptual integration model which consists of comprehensive elements that are important to academic research and industrial practices. They found that efficient supply chain integration placed all essential resources of all cooperating partners together and linked all functional processes in order to effectively use resources. The goal is to operate the whole supply chain as a corporate entity, to achieve effective and efficient flows of products and services, information and knowledge, finance and decisions so as to provide maximum value to the customers at low cost and high speed.

2.2.4 Internal integration and performance

Internal integration recognises that different functional areas and different departments within an organisation should operate as an integrated process for the organisation to meet its customer's requirements (Flynn et al., 2010). When internal functions are integrated there is more cooperation in the organisation and delivery of goods and services is affected as the elements of operational performance of cost, flexibility, quality and delivery reliability are affected.

While some researchers argue that internal integration leads to an improved operational or logistics performance (Stank et al., 2001) others claim that internal integration enhances external integration and it is the base for any external integration (Zhao et al., 2011; Flynn et al., 2010).

Zhao et al., (2011) sought to prove that internal integration has a direct positive impact on external integration. Their research focused on the cultural context of organizations in China but did not focus on a particular industry. They suggested that future research on supply chain integration should be done in other contexts.

Internal integration reduces internal operational barriers and stimulates healthy cooperation in different functional areas (Ali et al., 2023). They argued that an organization that has high levels of internal integration has highly established rules, procedures and strong relationships between its departments. These processes help its employees to better exploit external knowledge obtained through external integration.

2.2.5 Supply chain integration and Export Performance

Firms require having sound export strategies that would improve efficiency and profitability (José & Javier, 2014) and one of such strategies is forming integration in the chain of supply. Integration is considered as initial point to acquire key resources and capabilities that are conducive for exporting (Katsikeas & Leonidou, 2010; Fink & Kessler, 2010). The key resources formed in the integration relationship are unique and hard to imitate (Fink & Kessler, 2010). Organizations determined to develop integrative relationship with suppliers and customers need to shift from transactional to networking relationship (Glavee-Geo & Engelseth, 2018) in order to improve production efficiency and export performance.

Supply chain integration creates quality products and services that satisfy the customer demand effectively and influence competitive advantage collectively (Zhang et al., 2015). Satisfying consumer demands involve the understanding of their needs and values. In recent years consumers have placed great importance on food quality

such that they are willing to pay extra cost for traceability and labels (Wu et al., 2015). Using the supply chain integration approach traceability and other quality criteria including quality certification are enhanced and consumers build confidence on the products. Consumers need details regarding every process involved from farming, package, transport and storage till reaching their markets, this is what Fu et al (2017) called from 'farm to folk'.

Integration helps organization to survive competition and improve performance (Xu et al., 2014). Business environment changes fast in terms of consumer needs, improved technology which allows firms to produce at the low cost and with improved quality. Jose and Javier (2014) suggested that the changes in business environment require organizations to institute strategies in order to adapt. Adapting supply chain strategies have the ability to improve efficiency and profitability of the organization. However, implementing some strategies require organizations to redesign supply chain from information sharing to knowledge transfer (Trkman et al., 2015). The shift requires supply chain integration development which could lead to the voluntary exchange of knowledge and other resources among the partners.

Therefore, with the existing challenges in the business environment it is difficult for firms to succeed in isolation but rather in a collaborative network where they can share information, resources, skills and capabilities. Katsikeas & Leonidou (2010) argued that having the sound export strategies is the initial point to acquire resources and capabilities which further improve the export performance.

2.2.6 Export Performance

This study adapted definition of exporting from Love & Roper (2015) who defined export as an external international trade in goods and/or services conducted directly or through a third party. It is a degree to which firm's goals regarding to selling a product in the international market is achieved through the formation and completion of export marketing strategy (Azar, & Drogendijk, 2016). In short export performance is the outcome of a firm's operations in foreign markets (Wynarczyk, 2013).

III. OBJECTIVES OF THE STUDY

This article is concerned with testing and validating the relationship between supply chain integration and export performance in the developing countries which suffer from trade imbalance. The study focuses on the role of supply chain integration on the export performance among the developing countries the case of Tanzania.

3.1 Research Questions

There are three research questions in this study as follows;

- i. What is the influence of internal integration on export performances?
- ii. What is the effect of supplier integration on export performance?
- iii. How does Supply chain performance influence export performance?

IV. RESEARCH METHOD

The study designed was descriptive to measure the relationship between research variables, as well as identify the direction of the relationship between variables.

Moreover, the method adopted was quantitative with empirical study and deductive approach which started with theories and assumptions testing through data analysis. Data were collected from the senior supplies and marketing managers through to the chief executive managers. The population of the study included agricultural exporting firms located in Dares Salaam from which a sample of 186 was drawn. The sampling technique used is judgmental sampling. In the data analysis procedure, the study applied descriptive and inferential statistics using SPSS v.20. The study dwelt on the validity and reliability of data in order to enhance the quality of this quantitative empirical research. Validity measures included in the study were; content, internal, and convergent validity. Reliability represents whether data can pass the statistical tests and is qualified for analysis. Researcher tested the reliability using the Cronbach's alpha.

V. DATA ANALYSIS

5.1 Demographic Characteristics of Respondents

5.1.1 Gender

Male respondents were 61 percent while females were 39 percent. This is an indication that export business in agricultural sector is male dominated.

Table 5.1: Respondents by gender

| | Frequency | Percent | Valid Percent | cumulative |
|--------|-----------|---------|---------------|------------|
| Male | 114 | 61.3 | 61.3 | 61.3 |
| Female | 72 | 38.7 | 38.7 | 100 |
| Total | 186 | 100 | 100 | |

5.2.2 Respondents Age

The majority of the respondents are aged between 41 to 50 years (43%), followed by 31-40 (24%) 51-60 years (16.7%) then, 20-30 years (13.4%), and lastly above 61 years (2.2%).

Table 5.2: Respondents' Age

| | Frequency | Valid | | | Cumulative Percent |
|-------|-----------|---------|---------|--------------------|--------------------|
| | | Percent | Percent | Cumulative Percent | |
| Valid | 20-30 | 25 | 13.4 | 13.4 | 13.4 |
| | 31-40 | 45 | 24.2 | 24.2 | 37.6 |
| | 41-50 | 81 | 43.5 | 43.5 | 81.2 |
| | 51-60 | 31 | 16.7 | 16.7 | 97.8 |
| | above 61 | 4 | 2.2 | 2.2 | 100.0 |
| | Total | 186 | 100.0 | 100.0 | |

5.2.3 Level of Education

The majority of the respondents had an education level bachelor's degree followed by a Diploma, master's degree, and certificate holders constituted the minority. Therefore, the education question aimed at determining the education levels regardless of the field of study. Responses regarding respondents' level of education are given in Table 5.3.

Table 5.3: Respondents' Level of Education

| Valid | | Frequency | Valid | | |
|-------|-------------|-----------|---------|---------|---------|
| | | | Percent | Percent | Percent |
| | Certificate | 14 | 7.5 | 7.5 | 7.5 |
| | Diploma | 51 | 27.4 | 27.4 | 34.9 |
| | Bachelor | 72 | 38.7 | 38.7 | 73.7 |
| | Master | 49 | 26.3 | 26.3 | 100 |
| | | 186 | 100 | 100 | |

5.2.3 Experience

Experience in this context means the number of years the respondent has been working with the current organization. The average tenure for the majority (39.2 percent) was three to four years which indicated that researcher's informants had sufficient knowledge regarding the integration practices and export performance of their respective organizations.

Table 5.4: Respondents' experience

| | | Experience | | Valid Percent | Cumulative Percent |
|-------|-------------------|------------|---------|---------------|--------------------|
| | | Frequency | Percent | | |
| Valid | above 7 | 42 | 22.6 | 22.6 | 22.6 |
| | between 1-2 years | 28 | 15.1 | 15.1 | 37.6 |
| | between 3-4 years | 73 | 39.2 | 39.2 | 76.9 |
| | between 5-6 years | 37 | 19.9 | 19.9 | 96.8 |
| | less than 1 year | 6 | 3.2 | 3.2 | 100.0 |
| | Total | 186 | 100.0 | 100.0 | |

Then study determined whether there was a link between employees' experience in export operations and export performance. The results were as tabulated in table 5.4.

5.3 Correlation and Regression Results

In regression analysis it is desirable to have correlation between independent and dependent variables (Daoud, 2017). Prior to commencing the correlation test we created new variables from the average calculations of all items constituting a variable. Internal integration for instance had eleven items and therefore, eleven items were added up the average value obtained was then associated with other variables of study and tested the relationship that exists between them. Correlation means direction of the relationship. The correlation value can be positive, negative or zero implying that no relationship exists between the variables.

5.3.1 Correlation results

| | | Correlations | | | |
|-----|---------------------|--------------|--------|--------|-----|
| | | II | SI | SCP | EP |
| II | Pearson Correlation | 1 | | | |
| SI | Pearson Correlation | .198** | 1 | | |
| SCP | Pearson Correlation | .165* | .269** | 1 | |
| EP | Pearson Correlation | .442** | .391** | .306** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | |
| N | | 186 | 186 | 186 | 186 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

There was a positive and significant correlation between internal integration and export performance at a 0.01 significance level. Supplier integration has a positive but insignificant correlation with export performance. Supply chain performance has a positive and significant correlation with export performance at 0.01.

5.3.2 Regression results

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | Change Statistics | | | Sig. F Change |
|-------|-------------------|----------|-------------------|----------------------------|-----------------|-------------------|-----|-----|---------------|
| | | | | | | F Change | df1 | df2 | |
| 1 | .565 ^a | .319 | .308 | .63787 | .319 | 28.404 | 3 | 182 | .000 |

a. Predictors: (Constant), SCP, II, SI

ANOVA^a

| Model | Sum of Squares | df | Mean Square | F | Sig. | |
|--------------|----------------|-----|-------------|--------|-------------------|--|
| | | | | | | |
| 1 Regression | 34.672 | 3 | 11.557 | 28.404 | .000 ^b | |
| Residual | 74.052 | 182 | .407 | | | |
| Total | 108.724 | 185 | | | | |

a. Dependent Variable: EP

b. Predictors: (Constant), SCP, II, SI

The regression tests indicate the magnitude of the relationship between the variables using the t and p values. The p values are considered significant at either 0.01% or at 0.05% significant level. The regression between internal integration and export performance was positive with statistical values $t=5.722$ and $p=0$. There was a positive and significant relationship between supplier integration and export performance at 0.01 significant level and $t=4.245$.

The researcher then measured the direct relationship between supply chain performance and export performance; the relationship was found positive and significant the statistical values were $t= 2.704$ and $p= 0.007$. Regarding the association between supply chain collaboration items of internal integration and supplier integration and supply chain performance; results were as indicated in table 5.11

Table 5.11: Multiple Regression Analysis

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | | Collinearity Statistics | | |
|--------------|-----------------------------|-------|---------------------------|--------|-------------------------|-----------|-------|
| | B | Error | Beta | t | Sig. | Tolerance | VIF |
| | | | | | | | |
| 1 (Constant) | -3.014 | .705 | | -4.277 | .000 | | |
| II | .891 | .156 | .360 | 5.722 | .000 | .947 | 1.056 |
| SI | .343 | .081 | .273 | 4.245 | .000 | .903 | 1.107 |
| SCP | .295 | .109 | .173 | 2.704 | .007 | .914 | 1.093 |

a. Dependent Variable: EP

5.4 Reliability and Validity Tests

Reliability concerns faith in data; it explains the way measuring tool controls for random error (Mohajan, 2017). Reliability and validity are used together to determine the quality of research (Chan & Idris, 2017). Reliability is the accuracy/consistency of measuring instruments (Heale & Twycross, 2015) and validity indicates the extent to which the research concept is accurately measured. The aim of having reliability and validity in research is to

minimize bias (Noble & Smith, 2015). Reliability and validity is the key in enhancing the generalisability of findings (Smallbone & Quinton, 2004). It is crucial for studies that emanate from positivist approach to discuss reliability and validity to allow for the discernment of reality (ibid).

5.4.1 Reliability

Items in every variable were tested for reliability, the overall loading factor was above the the recommended threshold alpha value of 0.6. Cronbach's alpha value was 0.608 which is relatively above the threshold margin.

Table 5.12: Cronbach's alpha values

| Reliability Statistics | |
|------------------------|------------|
| Cronbach's Alpha | N of Items |
| .608 | 4 |

VI. DISCUSSION OF FINDINGS

6.1 Discussion of Findings

In the discussion part the findings were linked with the findings of other scholars in the literature. The findings can support the literature or may not be in support and the discussion provides justification for certain association or relationship established. The discussion followed the order of research objectives.

6.1.1 Relationship between the variables

Internal integration refers to different functions in an organization work together to achieve a common goal. Functional collaboration enhances resource utilization and mutual problem solving. Findings regarding the association between internal integration and export performance suggest that internal integration has positive and significant influence on export performance. Some of benefits of internal integration include resource sharing, joint problem solving and process design and improvement (Huo et al., 2014). The statistical values were as follows; and $t = 5.722$, $p=0$ correlation value 0.442 significant at 0.01 level. The positive and significant effects of internal integration on export performance are in line with the studies of Lee et al., (2007) who found that internal integration had positive influence on cost minimization. Internal integration enables firms to minimize cost through the reduction of redundant work (Seo et al., 2014; Huo et al., 2014).

In order to attain high performance targets firms need to work closely with some key suppliers; key suppliers are the one that organizations mostly depends upon for the acquisition of production inputs including raw materials and spare parts. Supplier integration is important in setting common goals which are mutually beneficial to the parties. Supplier integration is characterized by willingness of parties to share resources, joint problem solving and incorporating the supplier's opinion at the product or process design stage and reduces or avoids the subsequent problems at the implementation stage.

The specific objective two stated that; there is positive and significant association between supplier integration and export performance. Statistically $t = 4.245$; $p = 0$ and the correlation coefficient value of 0.391 significant at 0.01 level. The positive and significant effects of supplier integration on export performance are in line with the studies of Lau et al (2010) who established direct relationship between supplier integration and client delivery performance (Boon-itt & Chee, 2011); with operations performance (He et al., 2017) and lastly supplier integration had positive relationship with financial and supply chain performance (Abdallah et al., 2017; Li et al., 2019). Previous researchers studied and established positive association between supplier integration and different aspects of performance. This study linked supplier integration with export performance. The association has practical significance that in order to have successful export business particularly in food supply chain; working closely with supplier is important and one of the reasons being that it creates confidence on part of consumers. Confidence is built by consumers when they have information related to process involved in food preparation till they reach markets. Consumers have become more cautious with quality and food safety. Having the supplier close with the focal firm ensures that consumer expectations are communicated and incorporated in daily operation to avoid rejection incidences in future.

In specific objective three, researcher determined the relationship between the supply chain performance and export performance. Supply chain performance measures the operational efficiency of firm including timely delivery, shorter lead time, quality improvement and customer satisfaction. This study established the significant link between supply chain performance and export performance. The statistical significance includes $t = 2.704$, $p = 0.007$, and correlation value of 0.306 significant at 0.01 level see table 5.3.1. These results establish significant association between supply chain performance and export performance. The results support the findings by Kahn et al., (2006).

Practical significance; efficient operations in terms on time delivery and other operational efficiency measures are not sufficient condition to succeed in international markets. The collaboration among the departments is crucial in performance improvement.

VII. IMPLICATION, CONTRIBUTION AND CONCLUSION

7.1 Research Contribution

Researchers who established the link between supply chain performance and firm performance association include Kahn et al (2006) who found that supply chain performance had significant contribution in enhancing competitive advantage.

This study has linked supply integration and export performance; most of the studies have considered the link between integration with various aspects of performance including cost performance (Han et al., 2013), financial performance (Ataseven & Nair, 2017; Xu et al., 2014) and firm performance. However, there is rare literature that directly links integration aspects with export performance. The rationale was to apply integration aspects of functional integration and supplier integration in solving the practical problem of low export performance for agricultural products in developing countries, particularly in Tanzania. Firms experience many challenges including, challenges associated with finance, policies, insufficient knowledge regarding the international markets, and links with suppliers, particularly in the international markets. Therefore, the findings of this study suggest that supply chain integration can positively contribute in improving exports in developing countries.

Export performance has been a topic of interest among researchers due to its influence on the economic development of nations and exporting organizations. For that reason; researchers have dealt with various factors that influence export performance as follows; the role of government policies in enhancing export performance (Njinyah, 2018); the association between proximity to resources including the source of supply, skilled workers and government agency and export performance (Freeman and Styles, 2014). Influence of International Standard Organization (ISO) certification on export performance (Masakure et al., 2009), and lastly influence of rule of law and institutional quality on export performance (Soeng and Cuyvers, 2018). Therefore, this study analyzed the influence of integration from the supply chain perspective. To achieve performance in international markets there are many other factors for consideration.

7.2 Implication for Theory and Practice

7.2.1 Implication for Theory

There are several practical and theoretical implications from these findings. Findings indicate that firms should encourage integration practices to realize greater performances both in domestic and international markets. Theoretical implication includes the integration practice of

internal and supplier integration has direct influence on export performance. Functional collaboration enables optimal resource utilization, joint problem solving, and creating a common understanding regarding the customer expectations of internal operations. Similarly, supplier integration improves knowledge transfer, improving business skills, and the sharing of business information.

Relationships between functions and among organizations were examined based on the Relational exchange theory which was developed on the assumption that partners in any relationship measure the cost of integration against the gains. Findings are therefore in support of the notion that internal integration is the base for external integrations particularly suppliers integration.

Direct relationship between the export performance and supply chain performance demonstrates the importance of operational efficiency in the supply chain operations to enhance the export performance. Operational efficiency influences minimizing cost, reducing lead time, and enhancing customer satisfaction. Therefore, managers should encourage internal functions to work collaboratively to create better use of resources and to develop capabilities needed for improving export performance.

7.2.2 Policy Implications for Government

The following are policy implications to stakeholders in enabling the integration practices among the members in the supply chain. Government as the key stakeholder responsible for policy formulation and overseeing the business practices both in domestic and international markets have the following roles;

Review the policies governing export promotion in the countries and incorporate the new developments including the aspects of integration and collaborations which are important tools in resource deployment and creation of sustainable competitive advantage. The ways of conducting business have changed from Transaction cost to more of a relationship. Therefore, firms in developing countries need to work together to achieve mutually acceptable outcomes.

The government through the Ministry of Industry and Trade receives market opportunities from foreign markets and shares them with stakeholders through the ministry website and other media. However, I believe it is high time to improve communication methods such that it becomes more of capacity building than mere information dissemination. Some firms have great potential to export but sometimes they lack resources including the information about demand for products and ways to meet customer expectations in international markets.

Government has good chances of connecting firms in agricultural product business with buyers in the foreign countries through embassies in order to develop relationship and understanding which are fundamental in the creation of trust and commitment necessary for sustainable performance in the international markets. The reason for having mutual understanding of the requirement includes minimization of rejection incidences which can be very costly.

7.4 Direction for Further Research

The study proposes that future researchers should seek to collect data from supplier's side or adopt dyadic approach in providing evidence of effect of supply chain integration on export performance; researchers should seek responses from multiple partners. The aim is to get responses from other parties involved in the integration rather than depending on buying/focal firm without having the opinion of other members in the supply chain.

Future research could use the direct financial measure of export performance instead of relying on the perceptions of managers. Use of perception is more associated to subjective studies than objective. However, the benefits of using perception are considered as reliable way of getting data about financial performance which majority of the managers consider them confidential. Future researchers can consider using the published financial statement and extract data from such documents for analysis. Epistemological and ontological philosophical approaches and data collection and analysis support objectivism and therefore to improve consistency in research.

In order to maintain the generalisability of findings future researches could collect data in multiple countries with varying levels of economy and reduce the contextual issues which may arise from having data from single country (Salam, 2017, Wynarczyk, 2013: Revilla & Knoppen 2015). To reduce the effect of sectorial contextual influence, future studies should conduct study on other sectors of economy apart from agriculture and the other possibility is to conduct on cross sectorial study.

This study applied cross sectional data; however, relationship among the supply chain members tends to grow with time as they develop trust and commitment among them. Future studies should use longitudinal data in studying supply chain integration elements and export performance. Studies involving the longitudinal data are likely to reflect the influence of integration and performance as relationship get stronger and even in times of conflict between the partners in which the relationship weakens. Therefore, the study shall reflect the 'ups and downs' in terms of relationship strength and the associated influence on firm performance.

Regarding the questionnaire design part; this study applied the five-point Likert scale questionnaire however, there is concerns from some scholars that, significant number of respondents prefer the mid/neutral point in filling the questionnaire. Future studies should apply the 4-point Likert and observe how it may influence the findings (Eyaa et al., 2010). There are scholars with different opinions regarding the use of mid-point in the Likert scale. Subedi (2016) argued that it doesn't make a significant difference whether the mid-point applies or not. To reconcile these two conflicting views; future studies should use the 4-point Likert scale.

Future studies should focus on the cost aspects of supply chain integration because to have integration firms need a substantial amount of investment and hence it creates a need to evaluate the economic viability of such investments. Lastly; future studies could find the link between integration failures and firm performance which will enrich our understanding on integration dynamics.

7.5 Conclusion

The body of literature on the influence of integration practices on export performance can be enriched further to capture the interrelations between integration elements and export performance in light of constant changes that take place in a business environment.

The integration practices require a personal relationship between key individuals representing their organizations in the supply chain. However human relations are complex and therefore integration concepts need to accommodate not only sociological theories such as relational exchange theory and organizational theory such as resource-based view but also psychological aspects of human relations. Such inclusion aims to develop a more conducive environment for enhancing commitment which is crucial in integration practices and information sharing.

The study supports the view that integration practices have a direct and positive association with export performance through the sharing of knowledge among supply chain partners. Integration is important in the creation of unique resources and capabilities necessary for competitive advantage and export performance. Due to the scarcity of resources for small firms from developing nations; integration can be applied to create capabilities that could not be created by individual firms acting alone. However, the importance of integration is not limited to firms in developing countries but rather it includes firms in countries with different stages of development.

Several studies linked integration elements with several performance aspects of the organization including cost performance, financial performance, and firm performance. There are two major contributions from this

study as follows; this study have linked the integration aspects with export performance which has been under studied, integration is so much important such that even organisations which competes in the domestic market are encouraged to collaborate in order to win the foreign/international market. The findings are in line with the findings of Haddoud et al., (2017) who suggested that 'collaborate at home to win abroad' in this context home implies within functional units and with other firms geographically located together.

Therefore, these findings support the general objective of the study which is based on finding the influence of supply chain integration elements of internal and supplier integration together with supply chain performance on export performance for firms operating in the food supply chain in Tanzania.

REFERENCES

- [1] Abdallah, A.B., Abdullah, M.I., Saleh, F.I.M., "The effect of trust with suppliers on hospital supply chain performance: The mediating role of supplier integration", *Benchmarking: An International Journal*, 2017, V. 24(3):694-715.
- [2] Abrahamsson, M., Christopher, M., Stensson, B., *Mastering Supply Chain Management in an Era of Uncertainty* at SKF, Wiley Periodicals, Inc., 2015.
- [3] Ali, E., Jianhua, L., Rasheed, M and Siraj, A. (2023) "Measuring the impact of integration practices on firms' supply chain performance: role of organisational antecedents in this relationship" *Arab Gulf Journal of Scientific Research*, Vol. 41 No. 3 pp. 293-314
- [4] Anderson, W., Internalization Opportunities and Challenges for Small and Medium -Sized Enterprises from Developing Countries, *Journal of African Business*, 2011, V.12(2).
- [5] Ataseven, C., Nair, A., Assessment of Supply Chain Integration and Performance Relationships: A Meta-Analytic Investigation of the Literature, *International Journal of Production Economics*, 2017.
- [6] Azar, G., Drogendijk, R., "Cultural distance, innovation and export performance: An examination of perceived and objective cultural distance", *European Business Review*, 2016, V.28 (2):176-207.
- [7] Boehe, D., Collaborate at Home to Win Abroad: How Does Access to Local Network Resources Influence Export Behavior? *Journal of Small Business Management*, 2013, 51(2):167–182.
- [8] Boon itt, S., Wong C.W., "The moderating effects of technological and demand uncertainties on the relationship between supply chain integration and customer delivery performance", *International Journal of Physical Distribution & Logistics Management*, 2011, V.41(3):253-276.
- [9] Chan, L.L., Idris, N., Validity and Reliability of the Instrument Using Exploratory Factor Analysis and Cronbach's alpha, *International Journal of Academic Research in Business and Social Sciences*, 2017, V.7(10).
- [10] Chen, J., Sousa, C.M.P., He, X., "The determinants of export performance: a review of the literature 2006-2014", *International Marketing Review*, 2016, V.33(5): 626-670.
- [11] Chongela, J., Contribution of agriculture sector to the Tanzanian economy, *American Journal of Research Communication*, 2015, V.3(2):57-70.
- [12] Duong, ATB., Yap, TL, Ngo, VM and Quang, H.T (2024) " Critical success factors of food safety management for achieving climate neutrality; a multilevel moderated approach with industry revolution 4.0" *The International Journal of Logistics Management*, Vol. 35 No 3 pp 865-891.
- [13] Eyaa, S., Ntayi, J.M., Namagembe, S., Collaborative Relationships and SME Supply chain performance, *World Journal of Entrepreneurship, Management and Sustainable Development*, 2010, V.6(3).
- [14] Fawcett, S.E., Jin, Y.H., Fawcett, A.M., et al., "I know it when I see it: the nature of trust, trustworthiness signals, and strategic trust construction", *The International Journal of Logistics Management*, 2017, V. 28(4):914-938.
- [15] Fink, M., Kessler, A., Cooperation, Trust and Performance – Empirical Results from Three Countries, 2010, V.21:469-483.
- [16] Flynn, B.B., Huo, B., Zhao, X., The impact of supply chain integration on performance: A contingency and configuration approach, *Journal of operations management*, 2010, V.28 (1):58-71.
- [17] Freeman, J., Styles, C., "Does location matter to export performance?", *International Marketing Review*, 2014;V.31 (2):181-208.
- [18] Fu S, Han Z, Huo B, "Relational enablers of information sharing: evidence from Chinese food supply chains", *Industrial Management & Data Systems*, 2017; V.117 (5): 838-852.
- [19] Glavee-Geo, R., Engelseth, P., "Seafood export as a relationship-oriented supply network: Evidence from Norwegian seafood exporters", *British Food Journal*, 2018, V.120 (4):914-929.
- [20] Haddoud M.Y, Nowinski. W, Jones, P., et al,The Internationalization of African Firms; Internal and external determinants of export performance: Insights from Algeria, *Thunderbird International Business Review*, 2019,61:43–60.
- [21] Han, J., Lu, H., Trienekens, J. H, et al, "The impact of supply chain integration on firm performance in the pork processing industry in China", *Chinese Management Studies*, 2013,V.7(2): 230-252.
- [22] Handfield, R.B., Cousins, P.D., Lawson, B., et al, How Can Supply Management Really Improve Performance?A knowledge- based Model of Alignment Capabilities; *Journal of Supply Chain Management*, 2015, V.51 (3).
- [23] Haradhan Kumar , Two Criteria for good measurement in Research: Validity and Reliability, *Annals of SpiruHaret University*, 2017, (4):59-82.
- [24] He,Y., Sun,H., Ni,W., et al, "Re-examining the effects of supplier integration on operations performance: a relational view", *International Journal of Operations & Production Management*, 2017, V.37 (12):1702-1721.
- [25] Heale, R., Twycross, A., Validity and reliability in quantitative studies, *Evid Based Nurs*, 2015, V.18 (3).

[26] Huo, B., Qi, Y., Wang, Z., et al, "The impact of supply chain integration on firm performance: The moderating role of competitive strategy", *Supply Chain Management: An International Journal*, 2014, V.19 (4):369-384.

[27] José, O.M., Javier, C.C., "Export success factors of small- and medium-sized firms in Chile", *Journal of Small Business and Enterprise Development*, 2014, V.21 (3):450-469.

[28] Kahn, K.B., Maltz, E.N., Mentzer, J.T., Demand Collaboration effects on knowledge creation, Relationships and supply chain performance, *Journal of Business Logistics*, 2006, V.27(2).

[29] Karipidis, P., Chrysochou, P and Karypidou, I. (2020) " The importance of relationship characteristics in the export performance of food firms" *British Food Journal*, Vol. 122 No. 4, pp. 1305-1320

[30] Katsikeas, C.S., Leonidou, L.C., *Strategic Export Marketing- Achieving Success in a Harsh Environment*, Wiley online, 2010.

[31] Kazimoto, P., Assessment of Challenges facing Small and Medium Enterprises towards International Marketing Standards: a Case Study of Arusha Region Tanzania, *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 2014, V.4(2):303-311.

[32] Lau, A.K.W., Tang, E., Yam, R.C.M., Effects of Supplier and Customer Integration on Product Innovation and Performance: Empirical Evidence in Hong Kong Manufacturers, *Journal Prod InnovManag*, 2010, 27:761-777.

[33] Lee, C.W., Kwon, I.W.G., Severance, D., "Relationship between supply chain performance and degree of linkage among supplier, internal integration, and customer", *Supply Chain Management: An International Journal*, 2007, V.12(6):444-452.

[34] Love, J.H., Roper, S., SME innovation, exporting and growth: A review of existing evidence *Enterprise Research Centre and Warwick Business School, UK, International Small Business Journal*, 2015, V.33(1): 28– 48.

[35] Mah, J.S., Export Expansion and Economic Growth in Tanzania, *Global Economy Journal*, 2014, V.15 (1).

[36] Masakure, O., Henson, S., Cranfield, J., Standards and export performance in developing countries: Evidence from Pakistan, *The Journal of International Trade & Economic Development*, 2009, 18(3):395-419.

[37] Ministry of industry, Trade and Marketing, Tanzania National Export Strategy (2010-2014) 2009.

[38] Mpunga, H.S., Examining the factors Affecting Export performance for Small and Medium Enterprises (SMEs) in Tanzania, *Journal of Economics and Sustainable Development*, 2016, V.7(6).

[39] Myovella, G.A., Paul, F., Rwakalaza, R.T., Export led Growth Hypothesis: Evidence from Agricultural exports in Tanzania, *African Journal of Economic Review*, 2015, Vol. 3 No. 2.

[40] Njinyah, S.Z., "The effectiveness of government policies for export promotion on the export performance of SMEs Cocoa exporters in Cameroon", *International Marketing Review*, 2018: V. 35(1):164-185.

[41] Noble, H., Smith, J., Issues of validity and reliability in qualitative research, *Evid Based Nurs*, 2015, V.18(2).

[42] Panahifar F., Byrne, P.J., Salam, M.A., et al, "Supply chain collaboration and firm's performance: The critical role of information sharing and trust", *Journal of Enterprise Information Management*, 2018, V.31 (3): 358-379.

[43] Peng, M.W., York, A.S., Behind Intermediary Performance in Export Trade: Transaction, Agents and Resources, *Journal of International business studies*; 2001, 32:327-346.

[44] Piening, E. P., Salge, T.O., Understanding the Antecedents, Contingencies, and Performance Implications of Process Innovation: A Dynamic Capabilities Perspective, *J PROD INNOV MANAG*, 2015, 32(1):80–97.

[45] Revilla, E., Knoppen, D., "Building knowledge integration in buyer-supplier relationships: The critical role of strategic supply management and trust", *International Journal of Operations & Production Management*, 2015, V.35 (10):1408-1436.

[46] Rua, O., França, A., Ortiz, R.F., "Key drivers of SMEs export performance: the mediating effect of competitive advantage", *Journal of Knowledge Management*, 2018, V.22 (2):257-279.

[47] Rutashobya, L., and Jaansson, J., Small firms' Internationalization for development in Tanzania: Exploring the network phenomenon, *International Journal of Social Economics*, 2004, V.31 (1/2): 159-172.

[48] Salam, M.A., "The mediating role of supply chain collaboration on the relationship between technology, trust and operational performance: An empirical investigation", *Benchmarking: An International Journal*, 2017, V.24 (2):298-317.

[49] Seo, Y. J., Dinwoodie, J., Kwak, D.W "The impact of innovativeness on supply chain performance: is supply chain integration a missing link?", *Supply Chain Management: An International Journal*, 2014, V.19(5): 733-746.

[50] Smallbone, T., Quinton, S., Increasing business students' Confidence in Questioning the Validity and Reliability of their Research, *Electronic Journal of Business Research Methods*, 2004, V.2(2):153-162.

[51] Soeng, R., Cuyvers, L., Domestic institutions and export performance: Evidence for Cambodia, *The Journal of International Trade & Economic Development*, 2018, 27(4), 389-408.

[52] Stank, T.P., Keller S.B., Daugherty, P.J., Supply chain Collaboration and Logistics Service performance, *Journal of Business Logistics*, 2011, V.22(1).

[53] Stones, J. and Rahimifard, S. (2018) Resilience in agri-food supply chains: a critical analysis of the literature and synthesis of a novel framework, *Supply Chain Management*, Vol. 23 No. 3 pp. 207-238

[54] Subedi, B., Using Likert Type Data in Social Science Research: Confusion, Issues and Challenges, *International Journal of Contemporary Applied Sciences*, 2016, V.3 (2).

[55] Suleiman, R., Kurt, R., Current Maize Production, Post-harvest losses and the risk of Mycotoxins Contamination in Tanzania, *ASABE Annual International Meeting*, 2015.

- [56] Trkman, P., Budler, M., Groznik, A., A business model approach to supply chain management, supply chain management, 2015, V.20 (6).
- [57] Turkulainen V, Roh, J, Whipple J.M., et al, Managing Internal Supply Chain Integration: Integration Mechanisms and Requirements, Journal of Business Logistics, 2017, 38(4): 290–309.
- [58] Veera Pandiyan Kaliani Sundram, Prem Chhetri, Atika Shamsul Bahrin (2020) “The Consequences of Information Technology, Information sharing and Supply chain Integration towards Supply chain Performance and Firm performance “ Journal of International Logistics and Trade, Vol. 18 No. 1 pp. 15-31
- [59] Walter, D., Tanzania –Why a Potential Food Exporter is Still Importing Food, OECD Development Centre, 2008.
- [60] Wu, L., Wang, S., Zhu, D., et al, Chinese Consumers' preferences and willingness to pay for traceable food quality and safety attributes: The case of pork, China Economic Review, 2015, V.35:121-136.
- [61] Wynarczyk, P., “Open innovation in SMEs: A dynamic approach to modern entrepreneurship in the twenty-first century”, Journal of Small Business and Enterprise Development, 2013, V. 20(2):258-278.
- [62] Xu, D., Huo, B., Sun, L., "Relationships between intra-organizational resources, supply chain integration and business performance: An extended resource-based view", Industrial Management & Data Systems, 2014, V.114 (8):1186-1206.
- [63] Zacharia, Z.G., Nix, N.W., Lusch, R.F., An Analysis of Supply chain Collaboration and their effects on performance outcomes: Journal of Business Logistics, 2009, V.30 (2).
- [64] Zhang, M. and Huo, B.F., “The impact of dependence and trust on supply chain integration”, International Journal of Physical Distribution & Logistics Management, 2013: V.43(7):544-563.
- [65] Zhang,C., Gunasekaran, A., Wang, W.Y.C., "A comprehensive model for supply chain integration", Benchmarking: An International Journal, 2015, V.22(6):1141-1157.
- [66] Zhao, L., Huo, B., Sun, L., et al, The impact of supply chain risk on supply chain integration and company performance: a global investigation: Supply chain management; An International Journal, 2013, 18(2):115-131.
- [67] Zhao, X., Huo, B., Selen, W., et al, The impact of internal integration and relationship commitment on external integration, Journal of operations Management, 2011, V. 29(1-2):17-32.